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Fig. 1A

BEST AVAILABLE COPY

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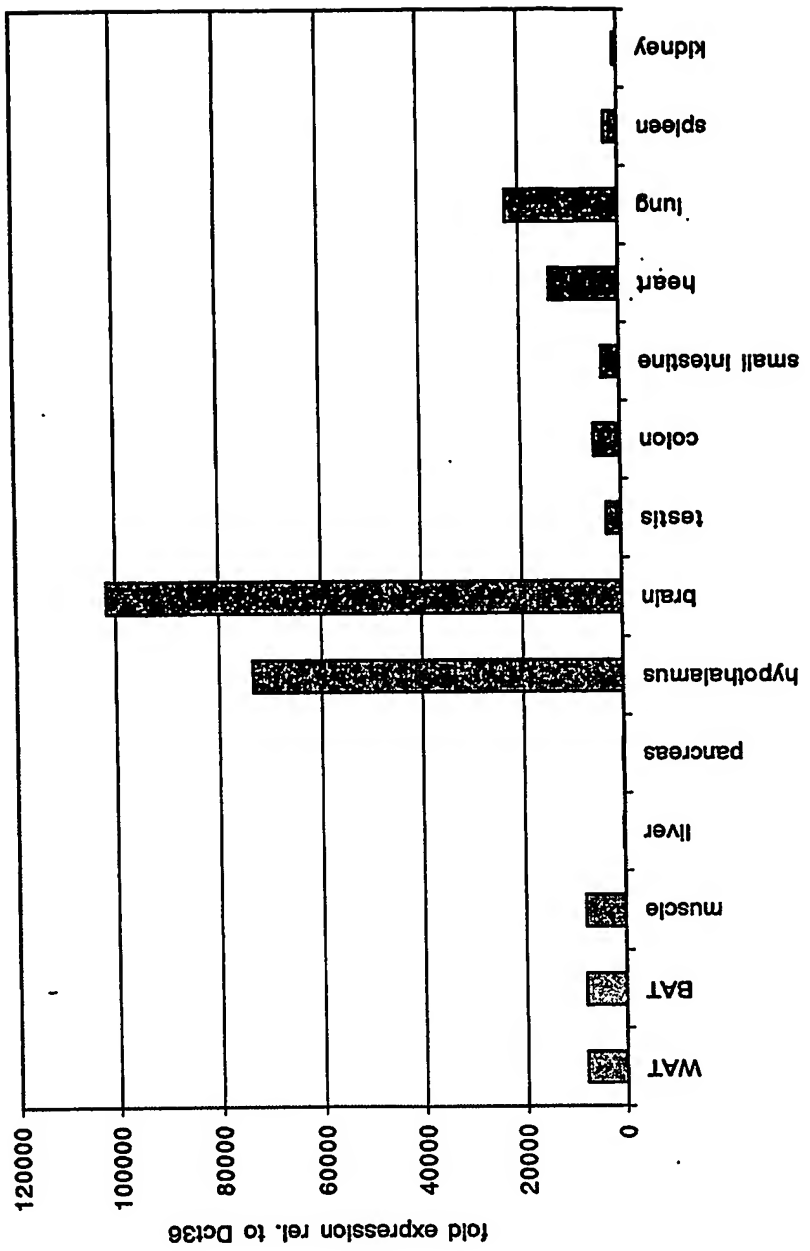
Fig. 1B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60000
40000
20000
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BAT
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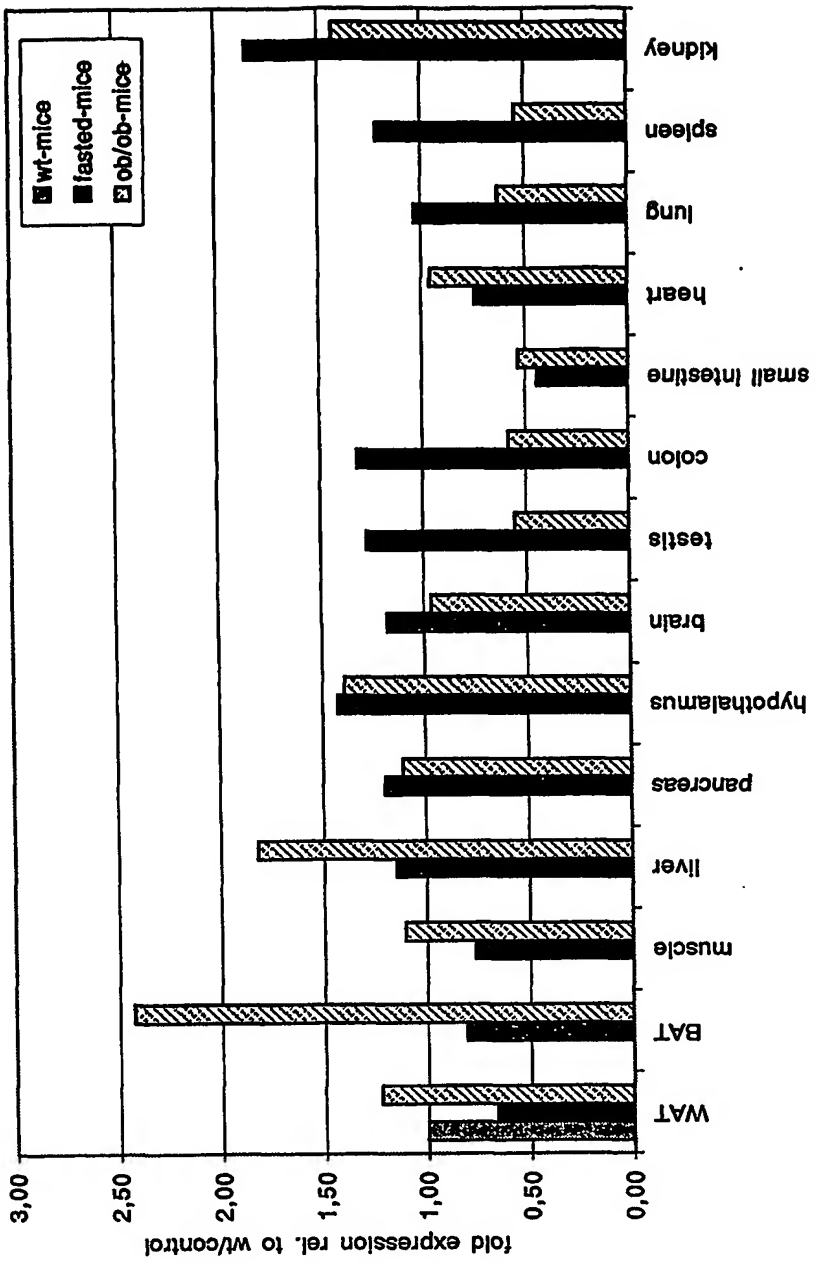
pancreas
hypothalamus
brain
testis
colon
small intestine
heart
lung
spleen
kidney

Fig. 2A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fasted-mice
ob/ob-mice
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0,50
0,00
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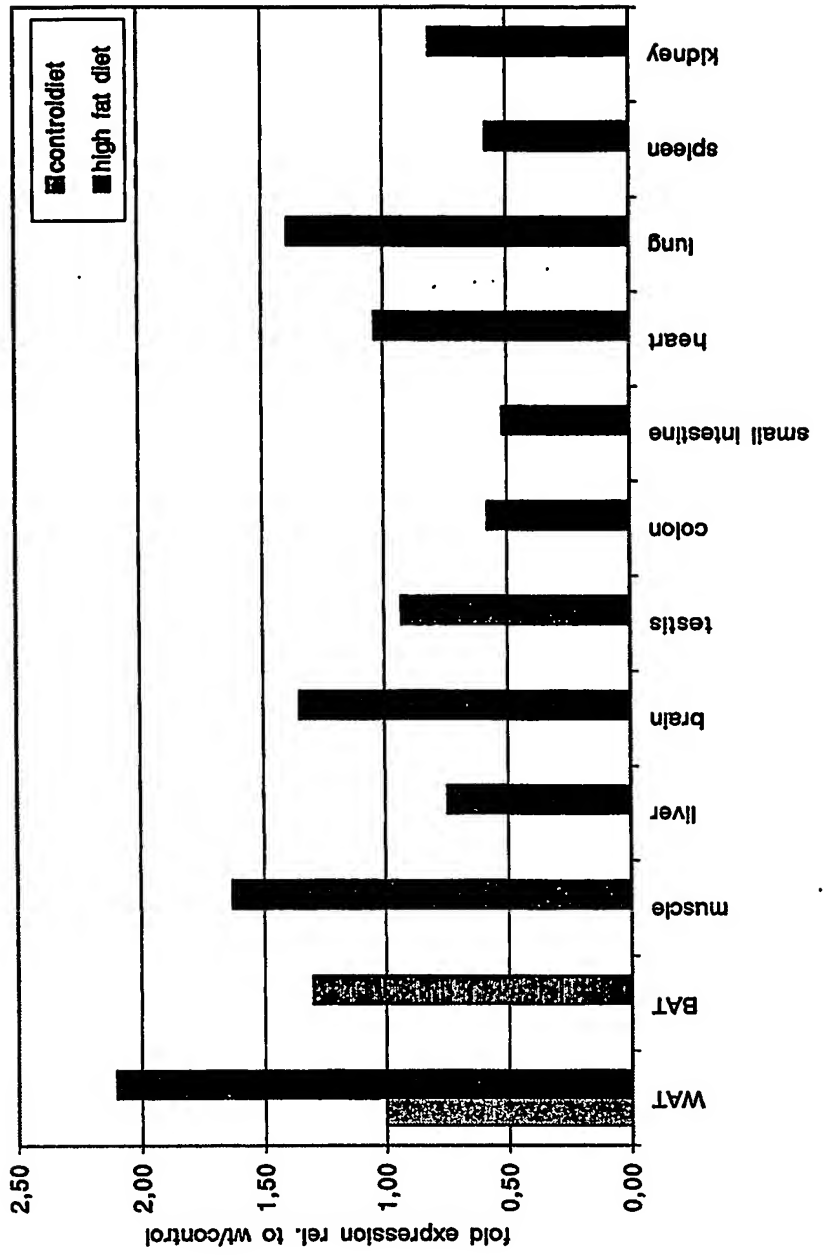
BAT
muscle
liver
pancreas
hypothalamus
brain
testis
colon
small intestine
heart
lung
spleen
kidney

Fig. 2B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high fat diet
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1,00
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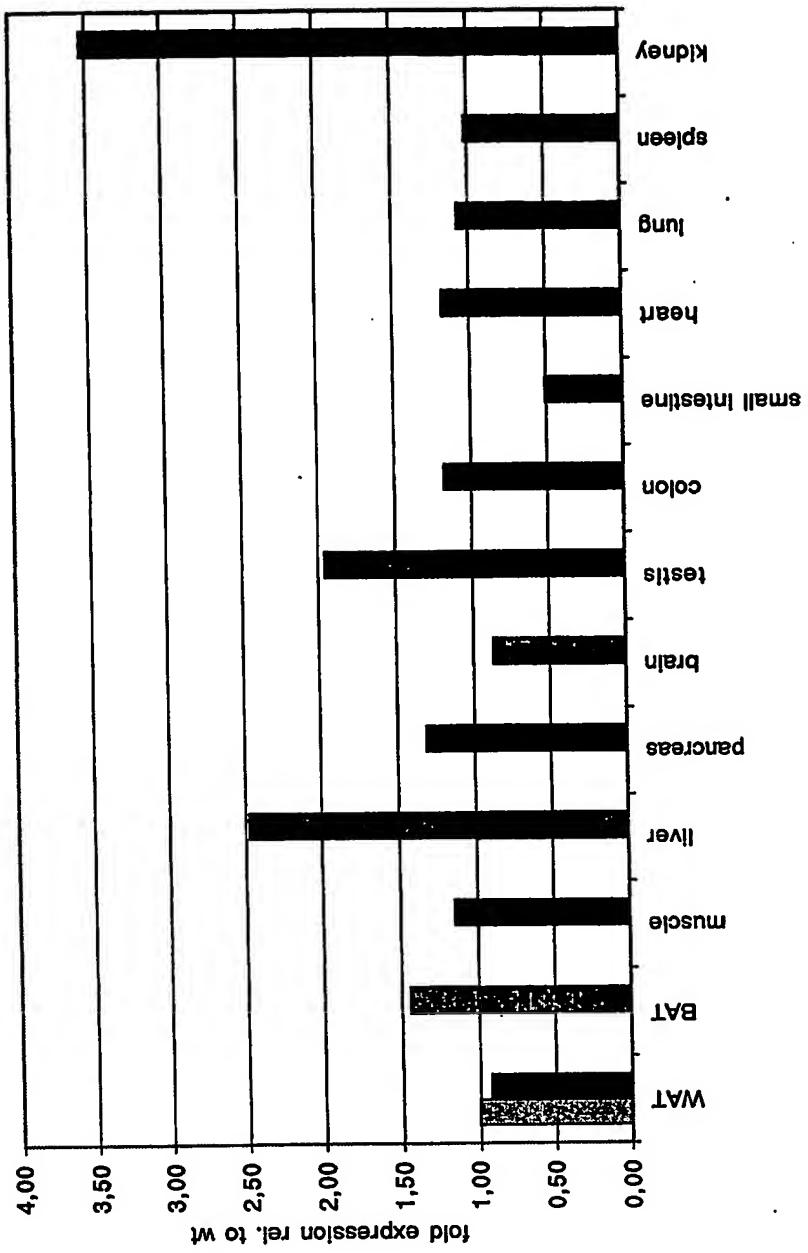
BAT
muscle
liver
brain
testis
colon
small intestine
heart
lung
spleen
kidney

Fig. 2C


kidney
spleen
lung
heart
small intestine
colon
testis
brain
pancreas
liver
muscle
BAT
WAT
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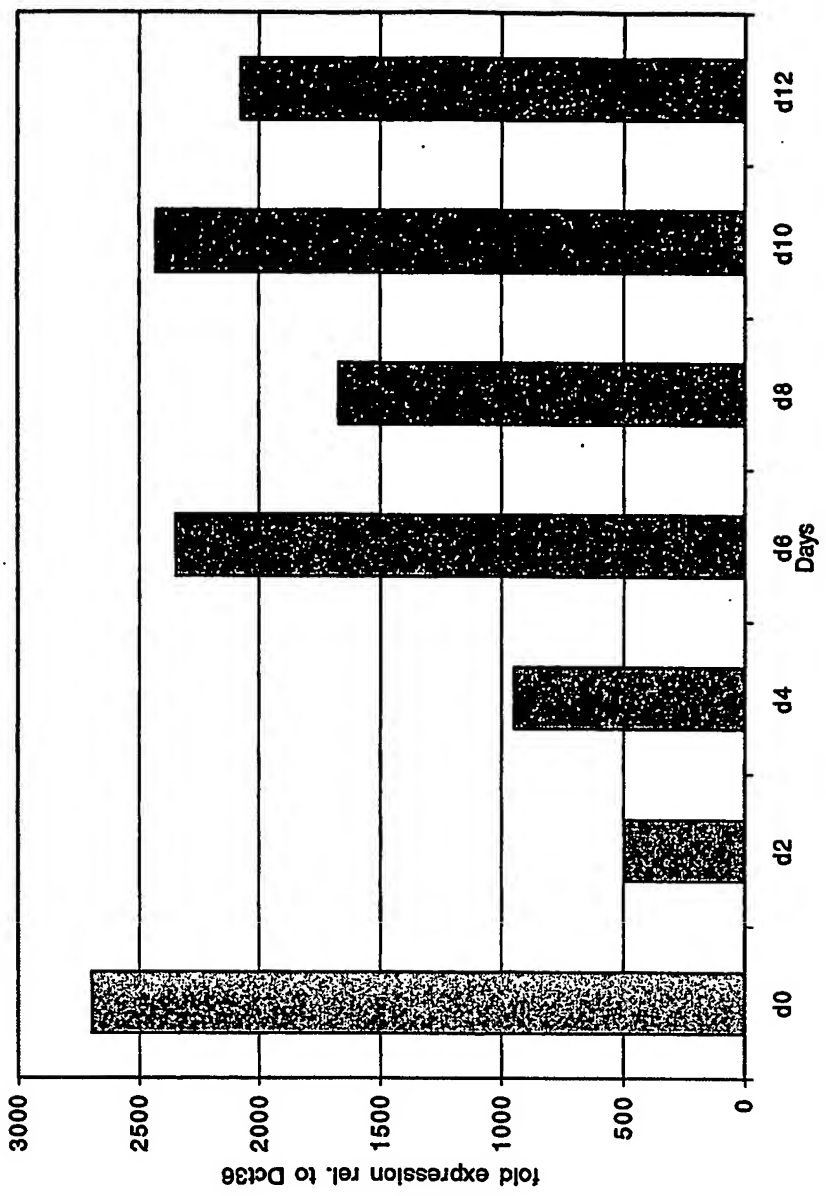
fold expression rel. to wt

Fig. 2D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d2
d4
d6
d8
d10
d12
Days

Fig. 2E

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Fig. 3A

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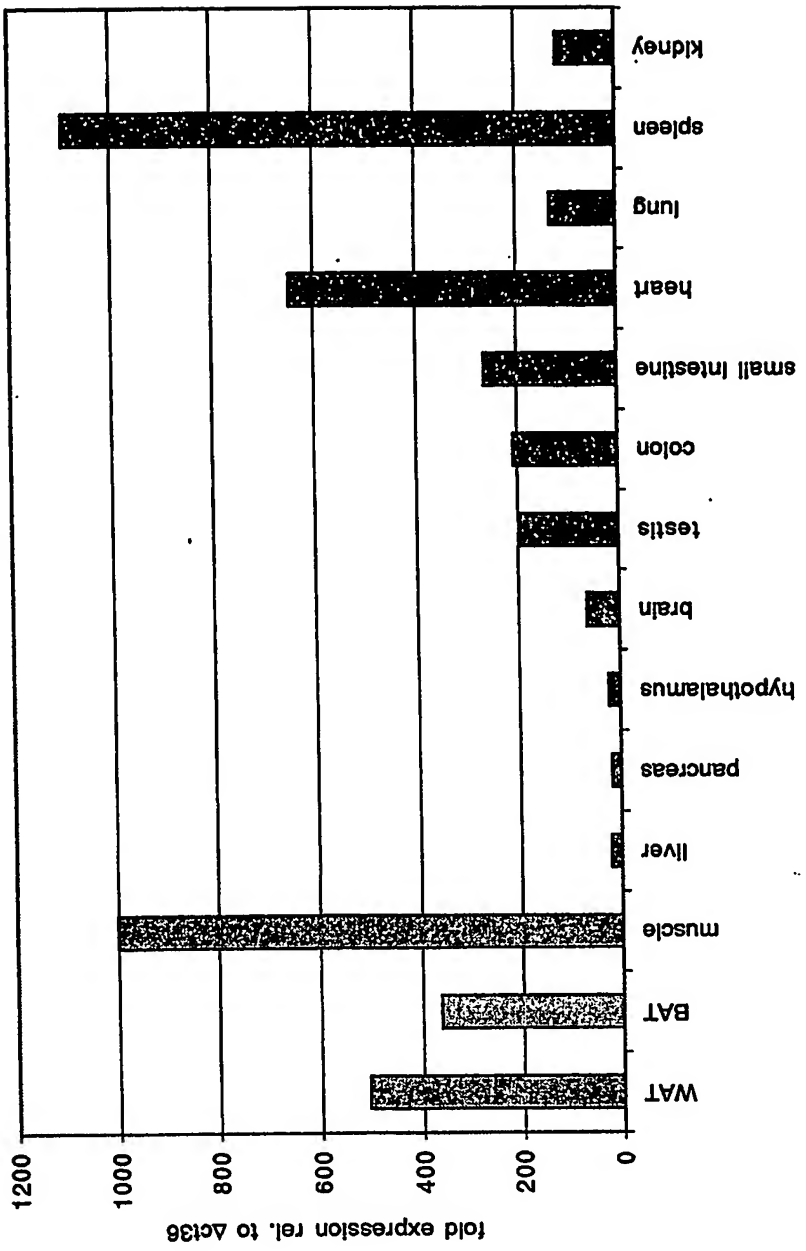
Fig. 3B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400
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800
1000
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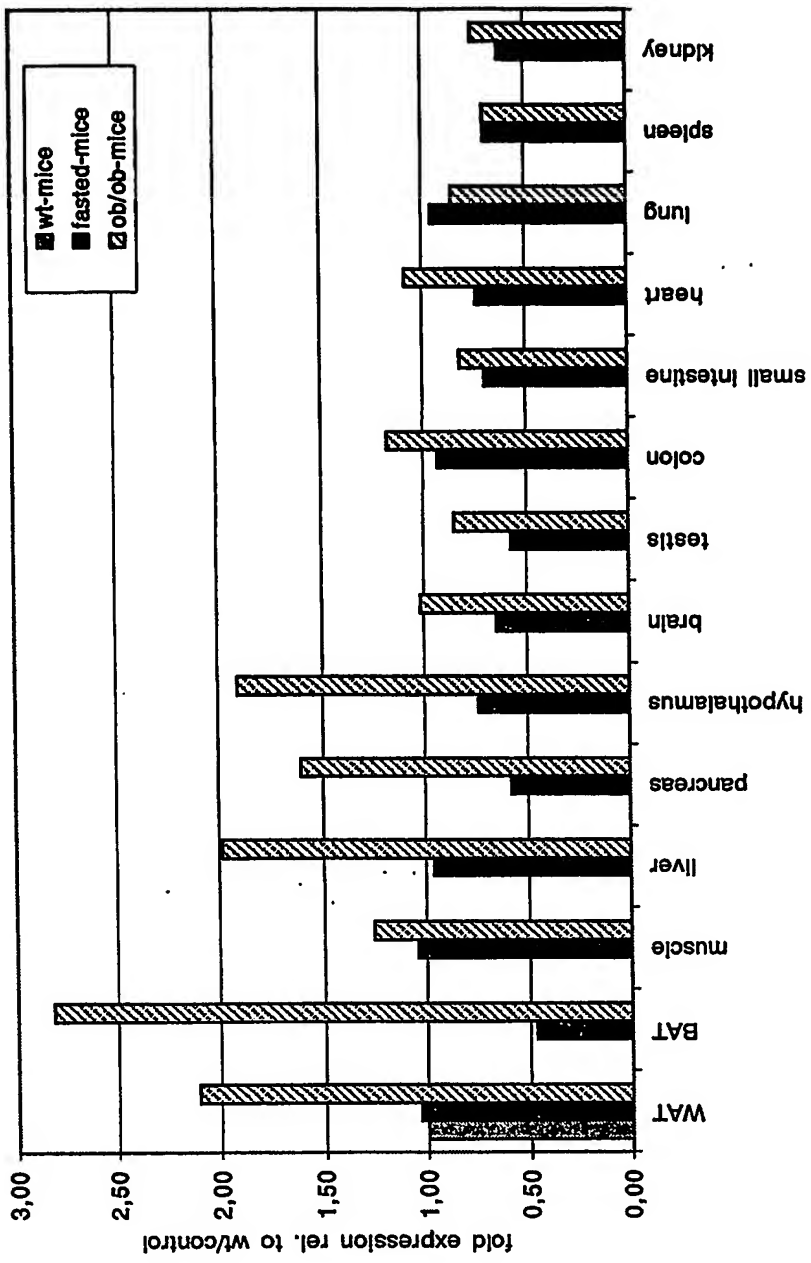
pancreas
hypothalamus
brain
testis
colon
small intestine
heart
lung
spleen
kidney

Fig. 4A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ob/ob-mice
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2,00
2,50
3,00
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BAT
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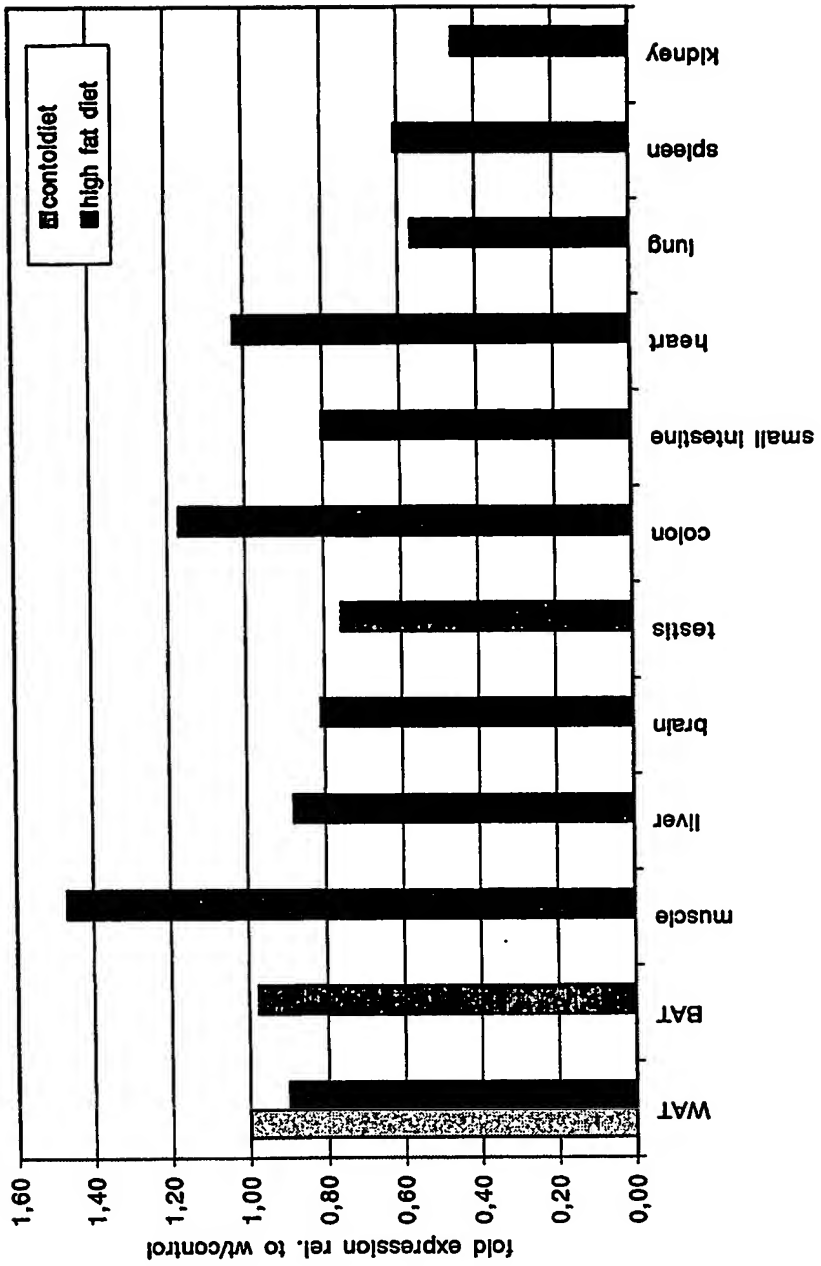
pancreas
hypothalamus
brain
testis
colon
small intestine
heart
lung
spleen
kidney

Fig. 4B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0,40
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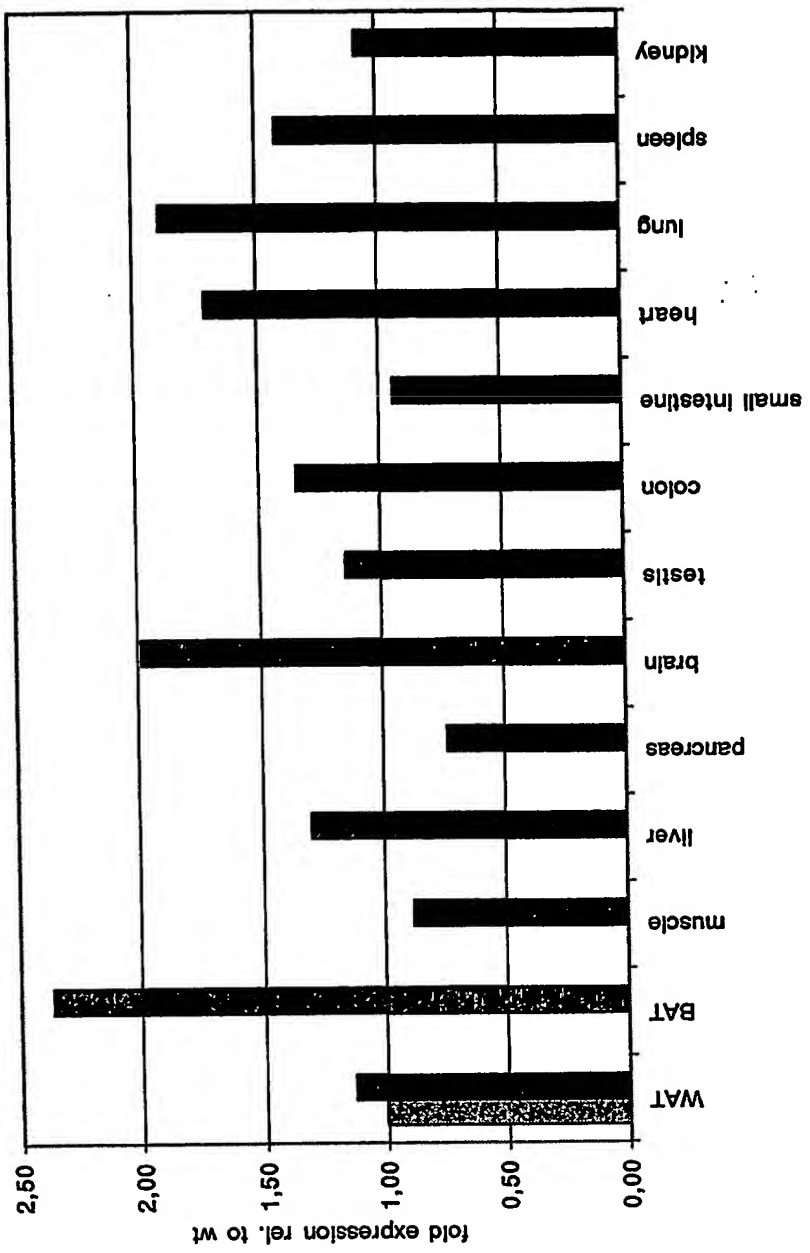
BAT
muscle
liver
brain
testis
colon
small intestine
heart
lung
spleen
kidney

Fig. 4C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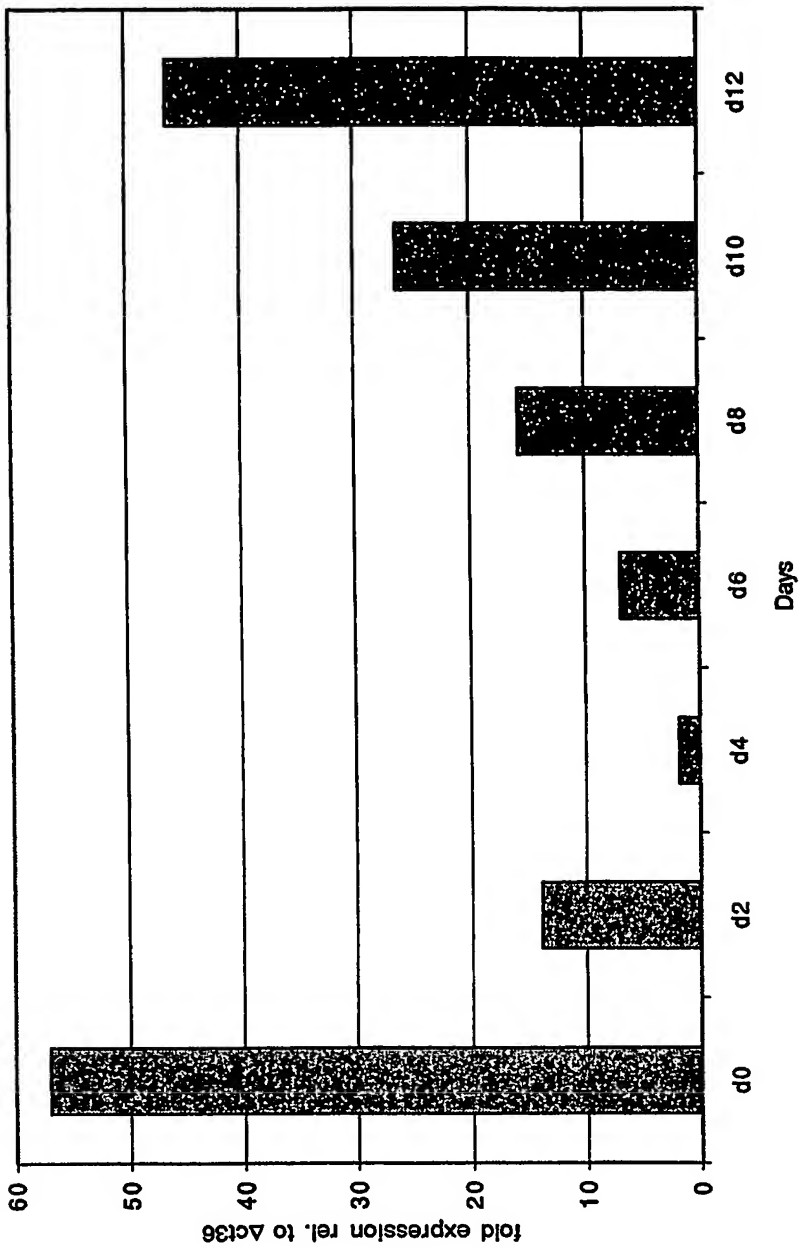
BAT
muscle
liver
pancreas
brain
testis
colon
small intestine
heart
lung
spleen
kidney

Fig. 4D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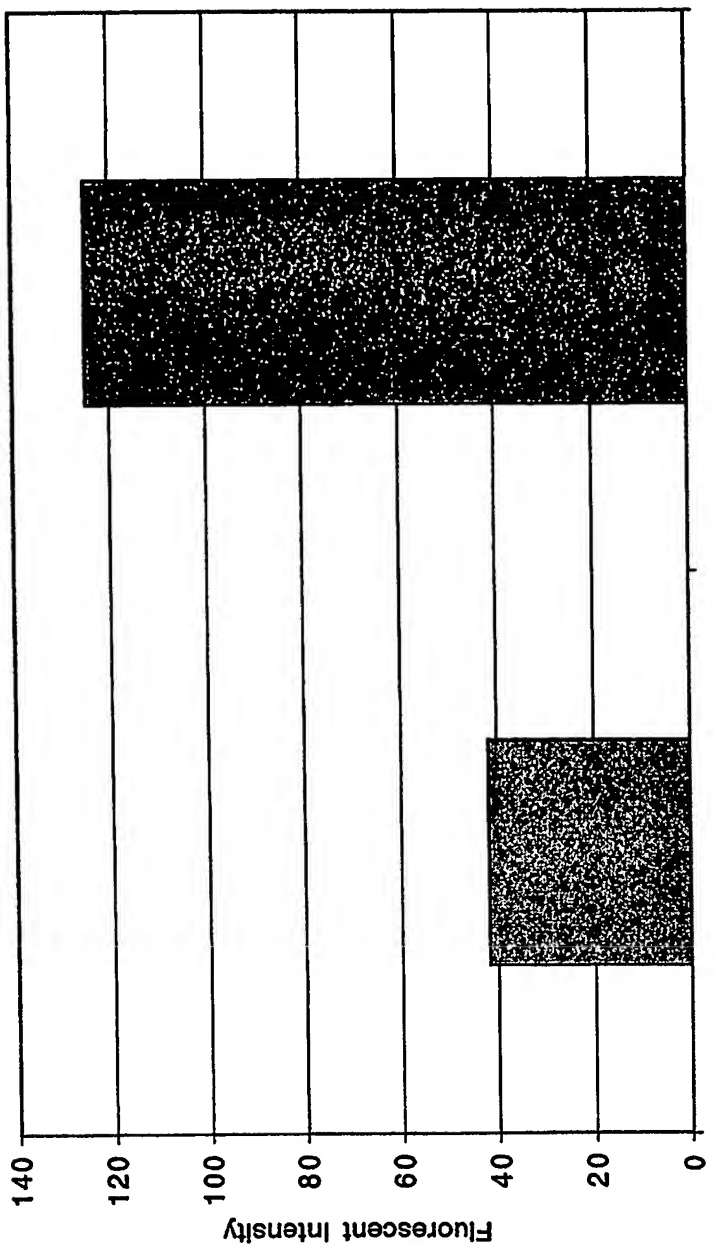
d8
d10
d12
Days

Fig. 4E



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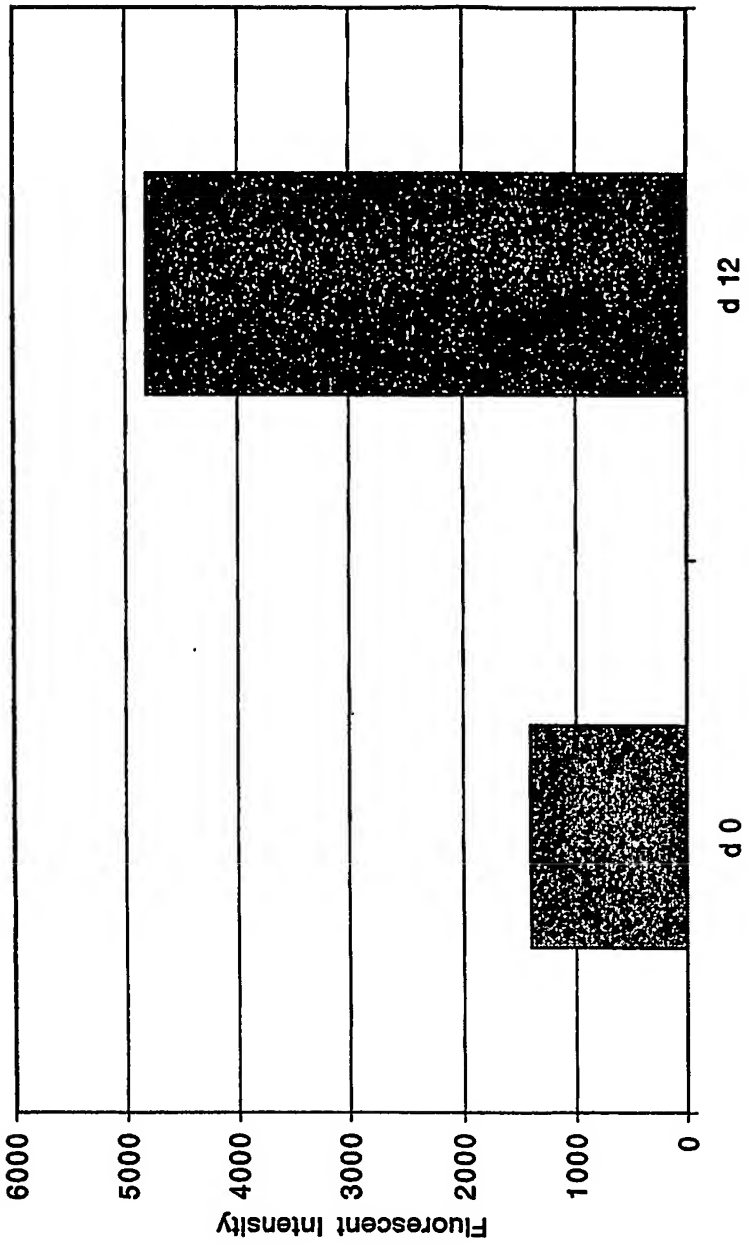
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0
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d 12
Days

Fig. 4G

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2101 tagaacagtc cagcaaattg ctagtcaggg tgaattgtga aattgggtga agagcttagg
2161 attctaatct catgtttttt ccttttcaca tttttaaaag aacaatgaca aacacccact
2221 tatttttcaa ggttttaaaa cagtctacat tgagcatttg aaaggtgtgc tagaacaagg
2281 tctcctgatc cgtccgaggc tgcttcccag aggagcagct ctccccaggc atttgccaag
2341 ggaggcggat ttccctggta gtgtagctgt gtggctttcc ttcctgaaga gtccgtggtt
2401 gccctagaac ctaacacccc ctagcaaaac tcacagagct ttccgttttt ttctttcctg
2461 taaagaaaca tttcctttga acttgattgc ctatggatca aagaaattca gaacagcctg
2521 cctgttcccc cgcacttttt acatatattt gtttcatttc tgcagatgga aagttgacat
2581 gggtggggtg tccccatcca gcgagagagt ttcaaaagca aaacatctct gcagtttttc
2641 ccaagtaccc tgagatactt cccaaagccc ttatgtttaa tcagcgatgt atataagcca
2701 gttcacttag acaactttac ccttcttgtc caatgtacag gaagtagttc taaaaaaaat
2761 gcatattaat ttcttccccc aaagccggat tcttaattct ctgcaacact ttgaggacat
2821 ttatgattgt ccctctgggc caatgcttat acccagtgag gatgctgcag tgaggctgta
2881 aagtggcccc ctgcggccct agcctgaccc ggagaaagga tggtagattc tgttaactct
2941 tgaagactcc agtatgaaaa tcagcatgcc cgcctagtta cctaccggag agttatcctg
```

Fig. 5A

```
3001 ataaattaac ctctcacagt tagtgatcct gtccttttaa caccttttt gtggggttct
3061 ctctgacctt tcatcgtaaa gtgctgggga ccttaagtga tttgcctgta attttggatg
3121 attaaaaaat gtgtatatat attagctaat tagaaatatt ctacttctct gttgtcaaac
3181 tgaaattcag agcaagttcc tgagtgcgtg gatctgggtc ttagttctgg ttgattcact
3241 caagagttca gtgctcatac gtatctgctc attttgacaa agtgcctcat gcaaccgggc
3301 cctctctctg cggcagagtc cttagtggag gggtttacct ggaacataag tagttaccac
3361 agaatacgga agagcaggtg actgtgctgt gcagctctct aaatgggaat tctcaggtag
3421 gaagcaacag cttcagaaag agctcaaaat aaattggaaa tgtgaatcgc agctgtgggt
3481 tttaccaccg tctgtctcag agtcccagga ccttgagtgt cattagttac tttattgaag
3541 gttttagacc catagcagct ttgtctctgt cacatcagca atttcagaac caaaagggag
3601 gctctctgta ggcacagagc tgcactatca cgagcctttg tttttctcca caaagtatct
3661 aacaaaacca atgtgcagac tgattggcct ggtcattggt ctccgagaga ggaggtttgc
3721 ctgtgatttg cctgtgattt cctaattatc gctagggcca aggtgggatt tgtaaagctt
3781 tacaataatc attctggata gagtcctggg aggtccttgg cagaactcag ttaaatcttt
3841 gaagaatatt tgtagttatc ttagaagata gcatgggagg tgaggattcc aaaaacattt
3901 tatttttaaa atatcctgtg taacacttgg ctcttggtac ctgtgggtta gcatcaagtt
3961 ctccccaggg tagaattcaa tcagagctcc agtttgcatt tggatgtgta aattacagta
4021 atcccatttc ccaaacctaa aatctgtttt tctcatcaga ctctgagtaa ctggttgctg
4081 tgtcataact tcatagatgc aggaggctca ggtgatctgt ttgaggagag caccctaggc
4141 agcctgcagg gaataacata ctggccgttc tgacctgttg ccagcagata cacaggacat
4201 ggatgaaatt cccgtttcct ctagtttctt cctgtagtac tcctctttta gatcctaagt
4261 ctcttacaaa agctttgaat actgtgaaaa tgttttacat tccatttcat ttgtgttgtt
4321 tttttaactg cattttacca gatgttttga tgttatcgct tatgttaata gtaattcccg
4381 tacgtgttca ttttattttc atgcttttc agccatgtat caatattcac ttgactaaaa
4441 tcactcaatt aatcaatgaa aaaaaaaaa
```

Fig. 5A (cont.)

```
  1 mgigrseggr rgalgvllal gaallavgsa seydyvsfqs digpyqsgrf ytkppqcvdi
 61 padlrlchnv gykkmvlpnl lehetmaevk qqasswvpll nknchagtqv flcslfapvc
121 ldrpiypcrw lceavrdsce pvmqffgfyw pemlkcdkfp egdvciamtp pnateaskpq
181 gttvcppcdn elkseaiieh lcasefalrm kikevkkeng dkkivpkkkk plklgpikkk
241 dlkklvlylk ngadcpchql dnlshhflim grkvksqyll taihkwdkkn kefknfmkkm
301 knhecptfqs vfk
```

Fig. 5B

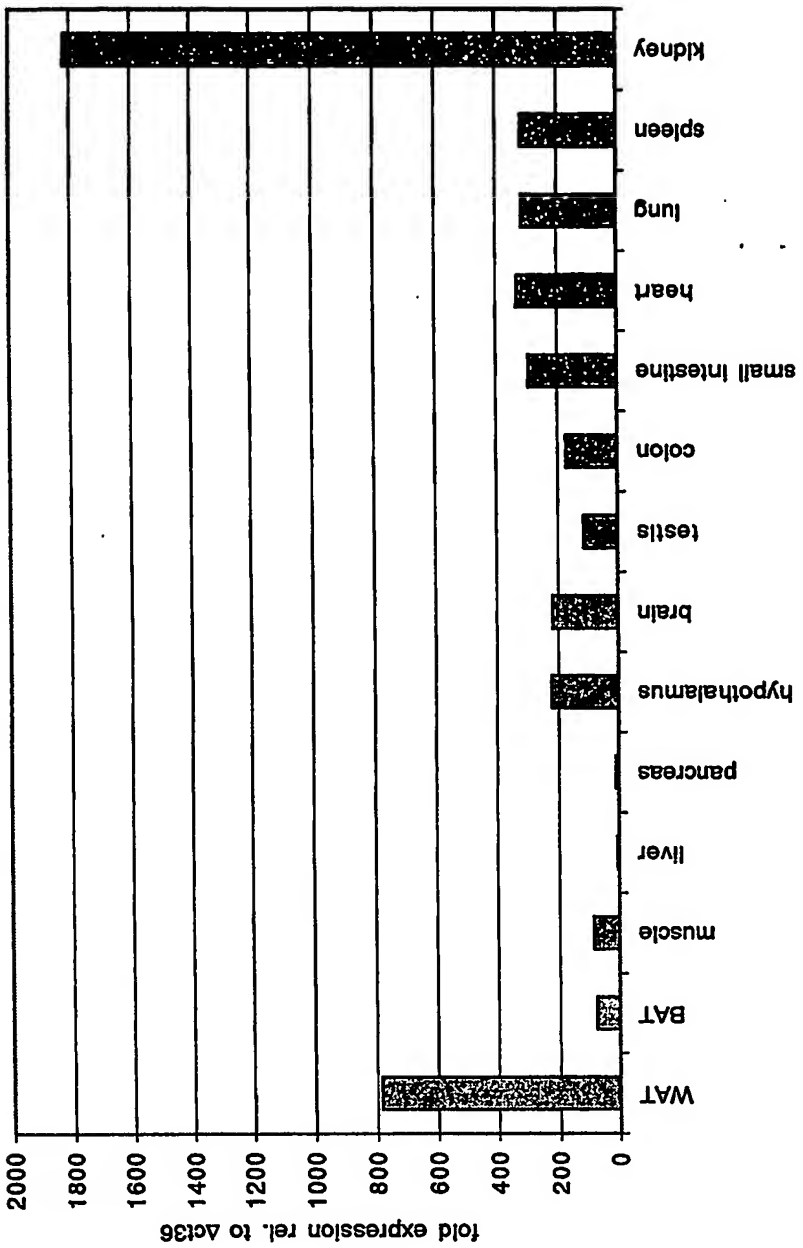

fold expression rel. to act36
2000
1800
1600
1400
1200
1000
800
600
400
200
0
WAT
BAT
muscle
liver
pancreas
hypothalamus
brain
testis
colon
small intestine
heart
lung
spleen
kidney

Fig. 6A

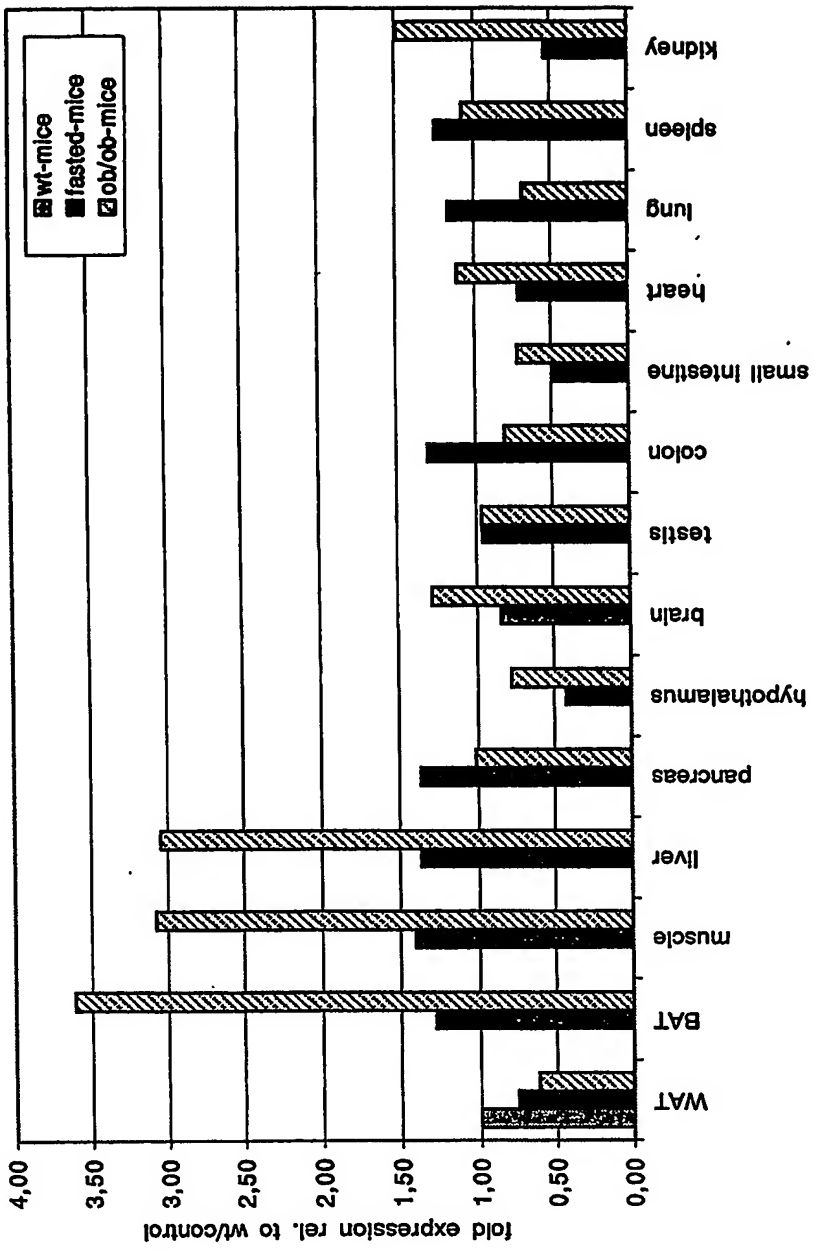

wt-mice
fasted-mice
ob/ob-mice
fold expression rel. to wt/control
4,00
3,50
3,00
2,50
2,00
1,50
1,00
0,50
0,00
WAT
BAT
muscle
liver
pancreas
hypothalamus
brain
testis
colon
small intestine
heart
lung
spleen
kidney

Fig. 6B

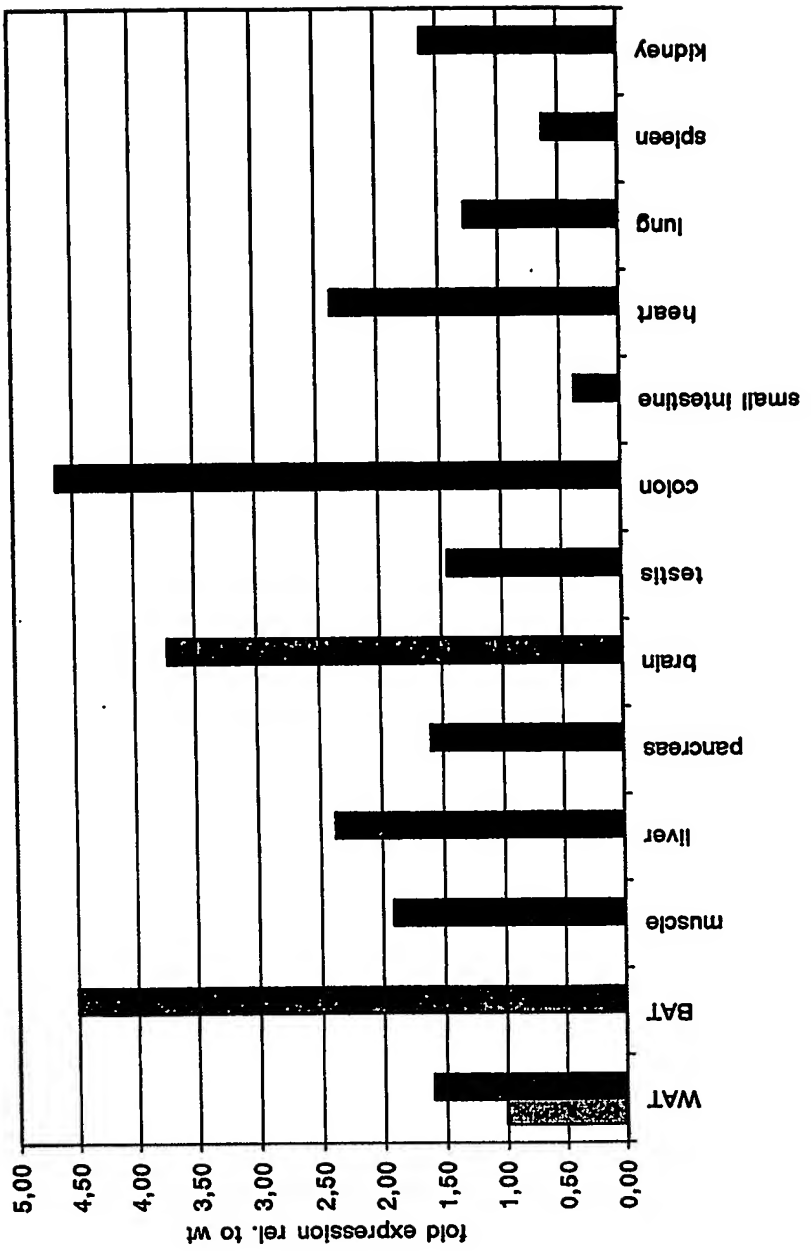

fold expression rel. to wt
5,00
4,50
4,00
3,50
3,00
2,50
2,00
1,50
1,00
0,50
0,00
WAT
BAT
muscle
liver
pancreas
brain
testis
colon
small intestine
heart
lung
spleen
kidney

Fig. 6C

```
   1 gtagtctgag cgctacccgg ttgctgctgc ccaaggaccg cggagtcgga cgcaggcaga
  61 ccatgtggac cctggtgagc tgggtggcct taacagcagg gctggtggct ggaacgcggt
 121 gcccagatgg tcagttctgc cctgtggcct gctgcctgga ccccggagga gccagctaca
 181 gctgctgccg tccccttctg gacaaatggc ccacaacact gagcaggcat ctgggtggcc
 241 cctgccaggt tgatgcccac tgctctgccg gccactcctg catctttacc gtctcaggga
 301 cttccagttg ctgccccttc ccagaggccg tggcatgcgg ggatggccat cactgctgcc
 361 cacggggctt ccactgcagt gcagacgggc gatcctgctt ccaaagatca ggtaacaact
 421 ccgtgggtgc catccagtgc cctgatagtc agttcgaatg cccggacttc tccacgtgct
 481 gtgttatggt cgatggctcc tgggggtgct gccccatgcc ccaggcttcc tgctgtgaag
 541 acagggtgca ctgctgtccg cacggtgcct tctgcgacct ggttcacacc cgctgcatca
 601 cacccacggg cacccacccc ctggcaaaga agctccctgc ccagaggact aacagggcag
 661 tggccttgtc cagctcggtc atgtgtccgg acgcacggtc ccggtgccct gatggttcta
 721 cctgctgtga gctgcccagt gggaagtatg gctgctgccc aatgcccaac gccacctgct
 781 gctccgatca cctgcactgc tgcccccaag acactgtgtg tgacctgatc cagagtaagt
 841 gcctctccaa ggagaacgct accacggacc tcctcactaa gctgcctgcg cacacagtgg
 901 gggatgtgaa atgtgacatg gaggtgagct gcccagatgg ctatacctgc tgccgtctac
 961 agtcgggggc ctggggctgc tgccctttta cccaggctgt gtgctgtgag gaccacatac
1021 actgctgtcc cgcggggttt acgtgtgaca cgcagaaggg tacctgtgaa caggggcccc
1081 accaggtgcc ctggatggag aaggccccag ctcacctcag cctgccagac ccacaagcct
1141 tgaagagaga tgtcccctgt gataatgtca gcagctgtcc ctcctccgat acctgctgcc
1201 aactcacgtc tggggagtgg ggctgctgtc caatcccaga ggctgtctgc tgctcggacc
1261 accagcactg ctgcccccag ggctacacgt gtgtagctga ggggcagtgt cagcgaggaa
1321 gcgagatcgt ggctggactg gagaagatgc ctgcccgccg ggcttcctta tcccacccca
1381 gagacatcgg ctgtgaccag cacaccagct gcccggtggg gcagacctgc tgcccgagcc
1441 tgggtgggag ctgggcctgc tgccagttgc cccatgctgt gtgctgcgag gatcgccagc
1501 actgctgccc ggctggctac acctgcaacg tgaaggctcg atcctgcgag aaggaagtgg
1561 tctctgccca gcctgccacc ttcctggccc gtagccctca cgtgggtgtg aaggacgtgg
1621 agtgtgggga aggacacttc tgccatgata accagacctg ctgccgagac aaccgacagg
1681 gctgggcctg ctgtccctac cgccagggcg tctgttgtgc tgatcggcgc cactgctgtc
1741 ctgctggctt ccgctgcgca gccaggggta ccaagtgttt gcgcagggag gccccgcgct
1801 gggacgcccc tttgagggac ccagccttga gacagctgct gtgagggaca gtactgaaga
1861 ctctgcagcc ctcgggaccc cactcggagg gtgccctctg ctcaggcctc cctagcacct
1921 ccccctaacc aaattctccc tggaccccat tctgagctcc ccatcaccat gggaggtggg
1981 gcctcaatct aaggccttcc ctgtcagaag ggggttgtgg caaaagccac attacaagct
2041 gccatccccc ccccgtttca gtggaccctg tggccaggtg cttttcccta tccacagggg
2101 tgtttgtgtg tgtgcgcgtg tgcgtttcaa taaagtttgt acactttcaa aaaaaaaaaa
2161 aaaaaaaaaa aaaaaaaa
```

Fig. 7A

```
   1 mwtlvswval taglvagtrc pdgqfcpvac cldpggasys ccrplldkwp ttlsrhlggp
  61 cqvdahcsag hsciftvsgt ssccpfpeav acgdghhccp rgfhcsadgr scfqrsgnns
 121 vgaiqcpdsq fecpdfstcc vmvdgswgcc pmpqascced rvhccphgaf cdlvhtrcit
 181 ptgthplakk lpaqrtnrav alsssvmcpd arsrcpdgst ccelpsgkyg ccpmpnatcc
 241 sdhlhccpqd tvcdliqskc lskenattdl ltklpahtvg dvkcdmevsc pdgytccrlq
 301 sgawgccpft qavccedhih ccpagftcdt qkgtceqgph qvpwmekapa hlslpdpqal
 361 krdvpcdnvs scpssdtccq ltsgewgccp ipeavccsdh qhccpqgytc vaegqcqrgs
 421 eivaglekmp arraslshpr digcdqhtsc pvgqtccpsl ggswaccqlp havccedrqh
 481 ccpagytcnv karscekevv saqpatflar sphvgvkdve cgeghfchdn qtccrdnrqg
 541 waccpyrqgv ccadrrhccp agfrcaargt kclrreaprw daplrdpalr qll
```

Fig. 7B

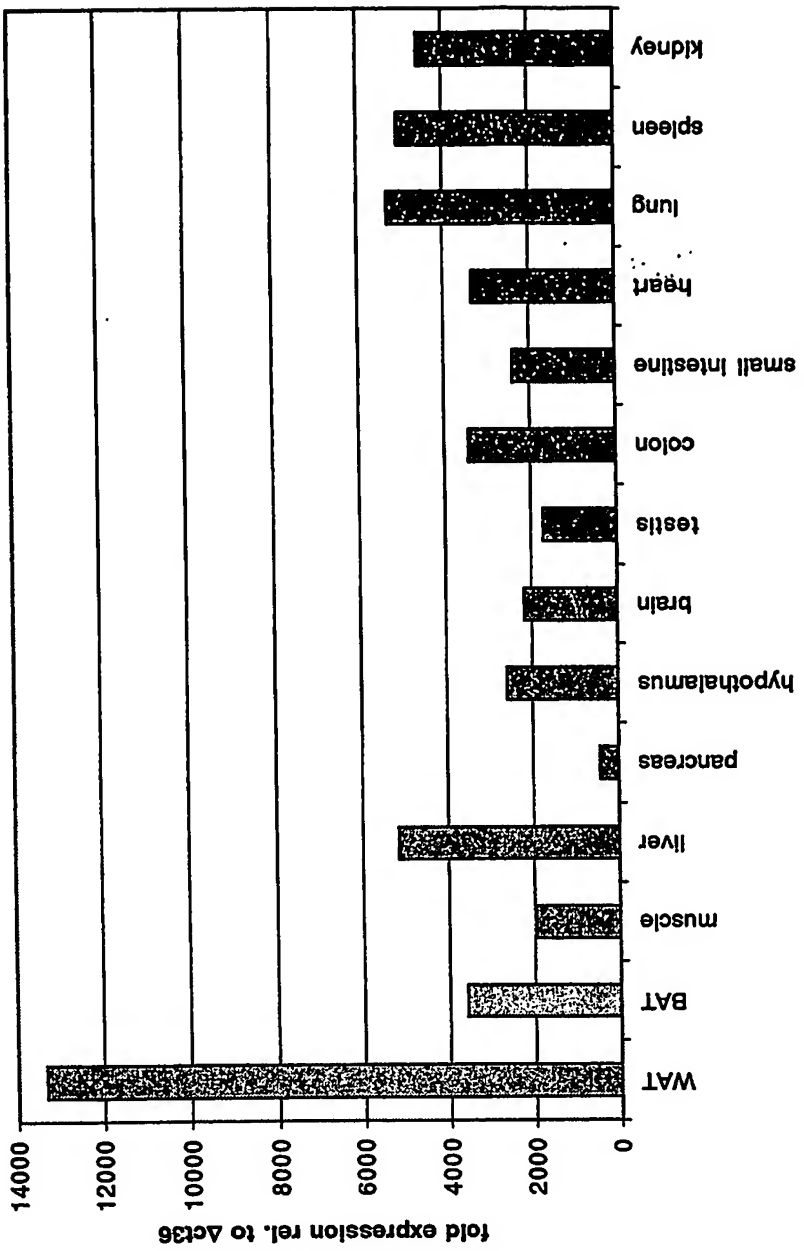

fold expression rel. to Actb6
14000
12000
10000
8000
6000
4000
2000
0
WAT
BAT
muscle
liver
pancreas
hypothalamus
brain
testis
colon
small intestine
heart
lung
spleen
kidney

Fig. 8A

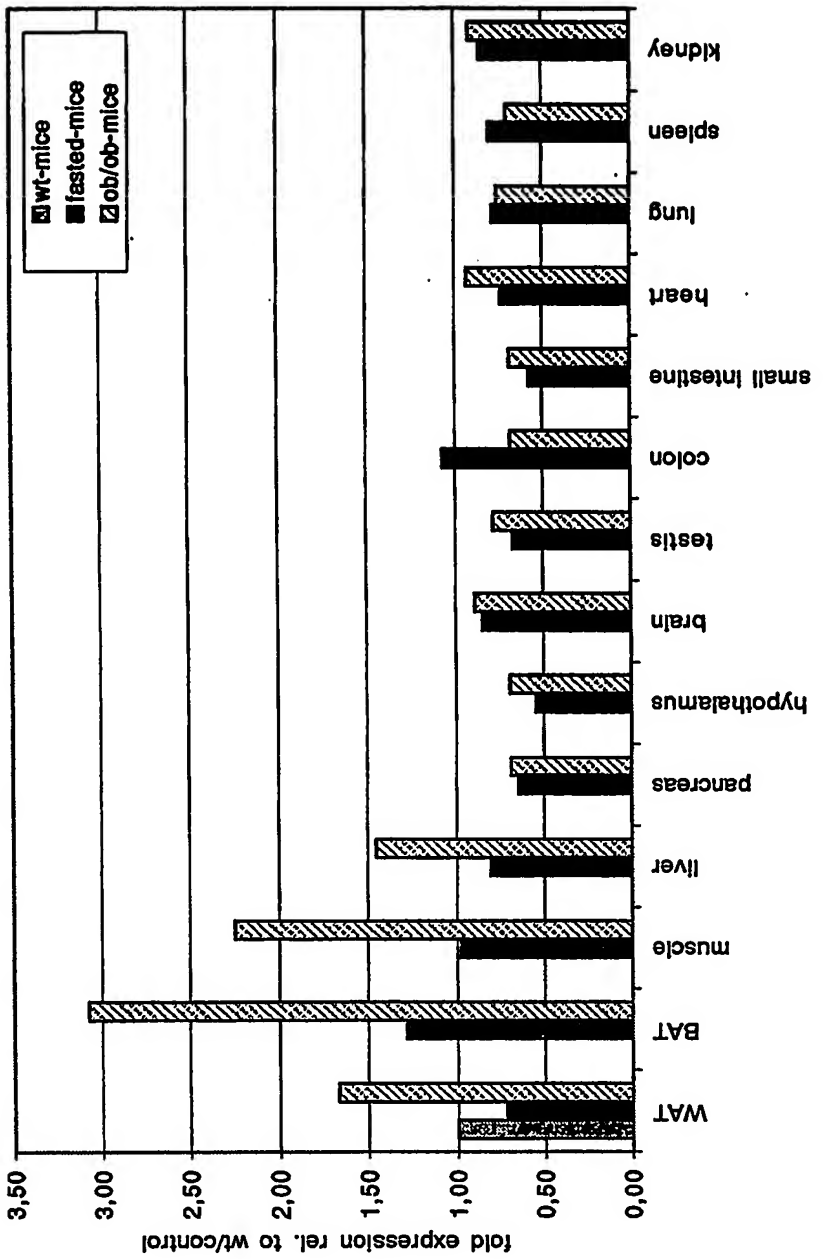

wt-mice
fasted-mice
ob/ob-mice
fold expression rel. to wt/control
3,50
3,00
2,50
2,00
1,50
1,00
0,50
0,00
WAT
BAT
muscle
liver
pancreas
hypothalamus
brain
testis
colon
small intestine
heart
lung
spleen
kidney

Fig. 8B

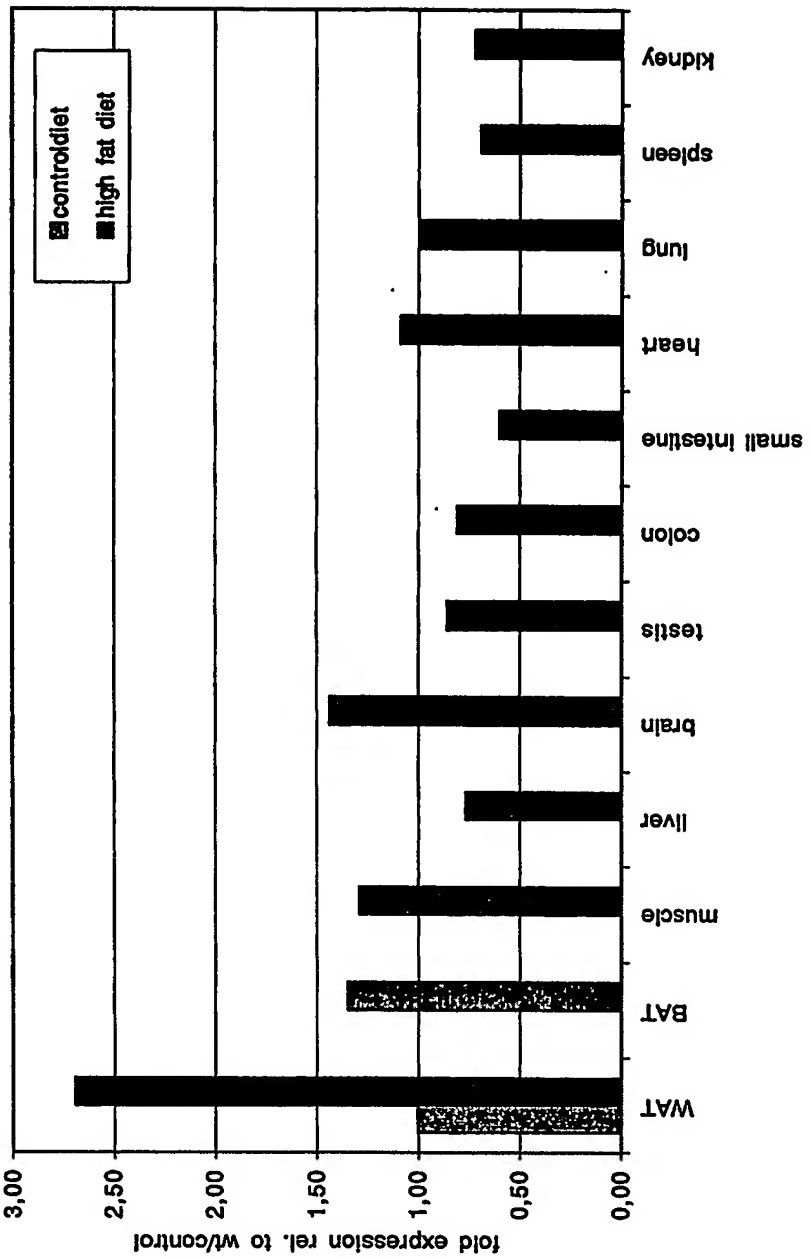
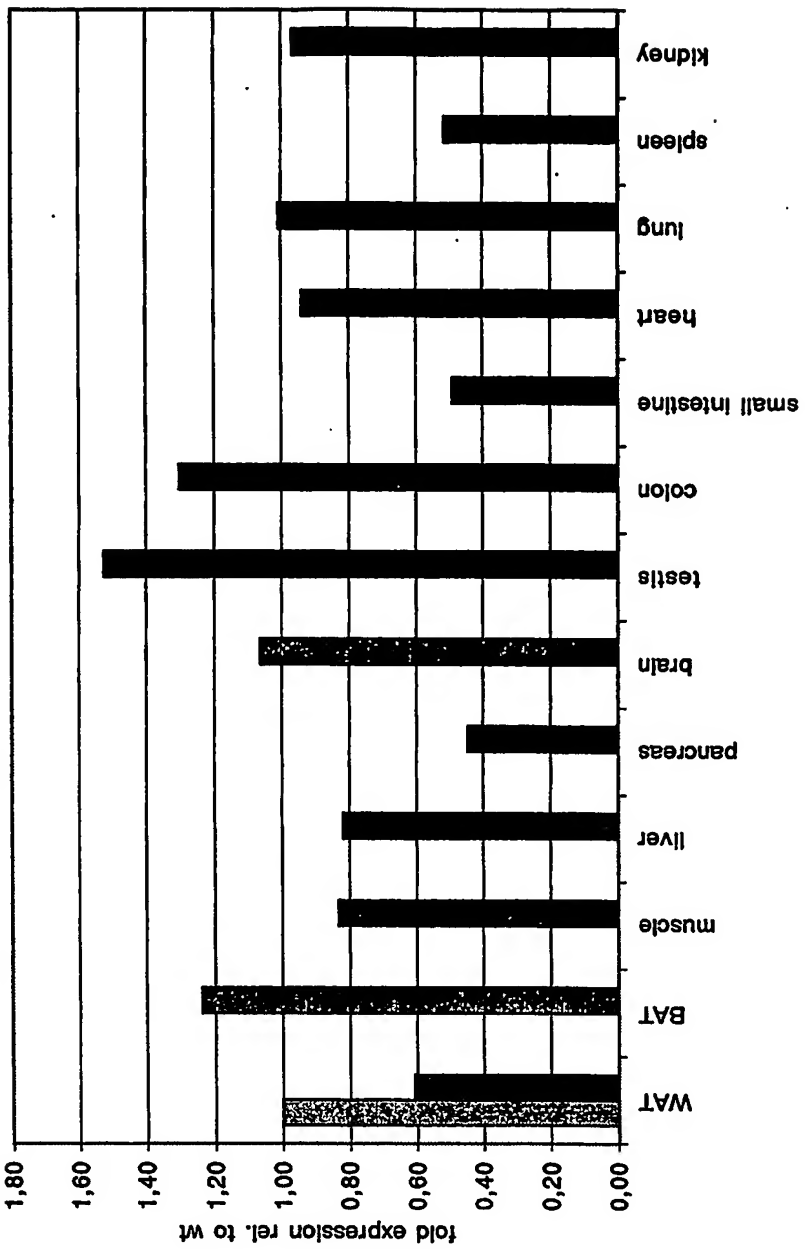

control diet
high fat diet
fold expression rel. to wt/control
3,00
2,50
2,00
1,50
1,00
0,50
0,00
WAT
BAT
muscle
liver
brain
testis
colon
small intestine
heart
lung
spleen
kidney

Fig. 8C


fold expression rel. to wt
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1,60
1,40
1,20
1,00
0,80
0,60
0,40
0,20
0,00
WAT
BAT
muscle
liver
pancreas
brain
testis
colon
small intestine
heart
lung
spleen
kidney

Fig. 8D

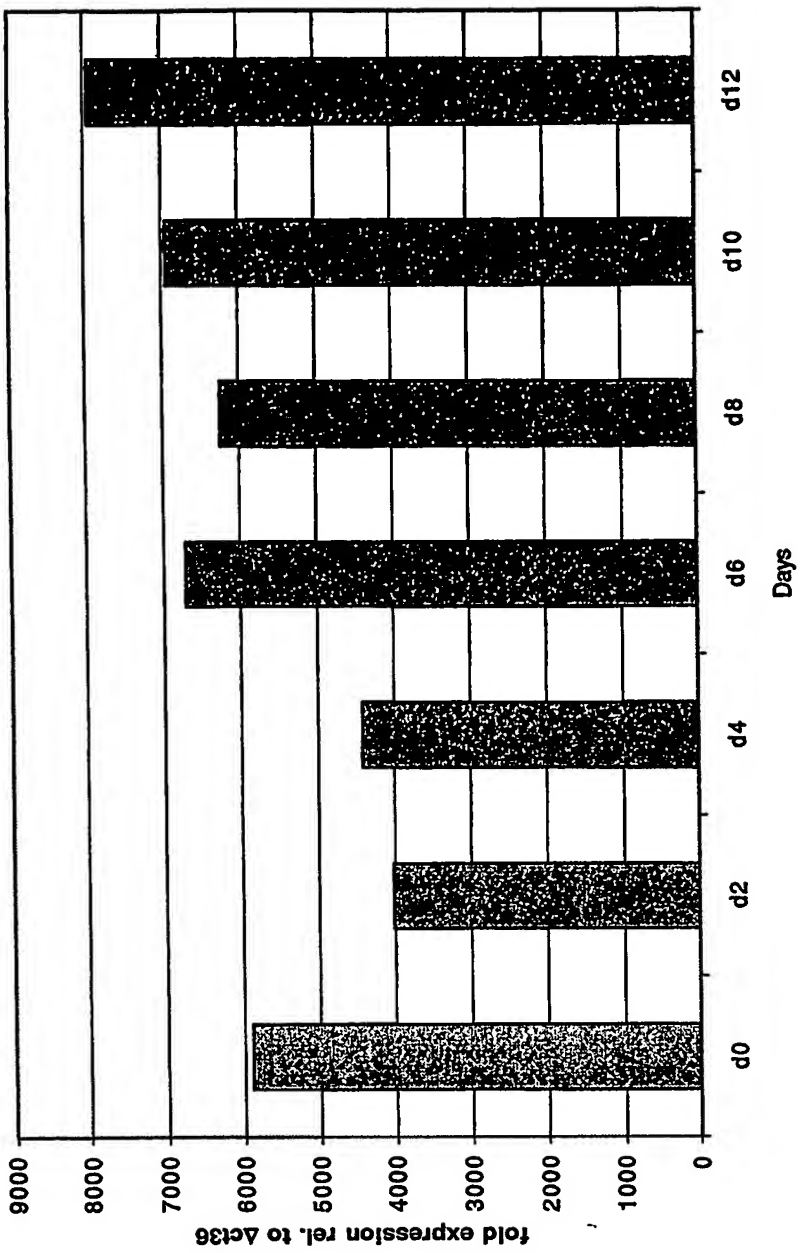
fold expression rel. to Act36
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
d0
d2
d4
d6
d8
d10
d12
Days

Fig. 8E

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